

AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A semiconductor device module structure comprising:

a high-resistance layer of a first conductive type;

a base layer of a second conductive type formed in an upper part of the high-resistance layer of the first conductive type;

an emitter region of the first conductive type formed in an upper part of the base layer of the second conductive type;

an emitter electrode connected to the emitter region;

an insulated gate electrode adjacent to the base layer of the second conductive type;

a guard ring part formed around a cell region including the emitter ~~region~~ region;

a buffer layer of the first conductive type formed on an underside of the high-resistance layer of the first conductive type;

a collector layer of the second conductive type formed on an underside of the buffer layer of the first conductive type;

a collector electrode connected to the collector layer; and

a metal flat plate upper heat-sinking part connected to the emitter electrode,

wherein the guard ring part comprises:

a semiconductor layer of the second conductive type disposed on the upper part of the ~~high-resistance~~ high-resistance layer of the first conductive type and located around the emitter region;

an insulating layer formed on an upper part of the semiconductor layer of the second conductive type; and

a passivation layer covering the insulating layer without covering the cell region,

wherein a gap is formed between the passivation layer and the upper heat-sinking part such that the passivation layer does not directly contact the upper heat-sinking part.

Claim 2 (previously presented): The semiconductor device module structure of claim 1, wherein the semiconductor device module structure comprises a diode part, and wherein a cathode electrode located in an upper part of the diode part between the high-resistance layer and the upper heat-sinking part is connected to the upper heat-sinking part.

Claim 3 (previously presented): The semiconductor device module structure of claim 1, wherein one end of the metal flat plate upper heat-sinking part is connected to the emitter electrode and the opposite end of the metal flat plate heat-sinking part is connected to a substrate.

Claim 4 (previously presented): The semiconductor device module structure of claim 1, wherein the first conductive type is either an N-type or an N⁺-type, and wherein the second conductive type is either a P-type or a P⁺-type.